UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Ref: EPR ER

FINAL POLLUTION REPORT
Superior Waste Rock
Superior, Mineral County, Montana

I. HEADING

Date:	**06/23/03**
From:	Tien Nguyen, On-Scene Coordinator Agency: EPA
Unit:	Region VIII - Emergency Response Program 999 18th Street, Suite 300 Denver Colorado 80202 (303) 312-6820
To:	Kevin Mould, EPA Headquarters
POLREP No.:	**#5 and Final**
Site:	Superior Waste Rock

II. BACKGROUND

Site Number:	08-ER
Party Conducting the Action:	EPA
Response Authority:	CERCLA
NPL Status:	No
Action Memorandum Status:	08/02/02
Date Action Started:	08/20/02
Completion Date:	**06/23/03**

III. SITE INFORMATION

A. Incident Category

Time Critical, Fund-Lead

B. Site Description

1. Site description

The Site covers the town of Superior, in Mineral County, Montana, where tailings reportedly have been used as a fill surface soil and contamination exists at local residences, the town's right-of-ways, the county fairground, and the Superior High School track. The Site is located down-stream from the Flat Creek drainage, along the banks of the Clark Fork River, and approximately 3.5 miles south of the Iron Mountain Mine and Mill. The waste rock/tailings reportedly are from the Iron Mountain Mine and Mill.

2. Site evaluation

See previous POLREPs for additional Site information.

In January, 2002, the Montana Department of Environmental Quality (MDEQ) requested EPA to evaluate the Superior High School track and Superior residential properties for a possible removal action. As of a result, a Site Sampling Plan was developed and in June , 2002 the EPA Region VIII Removal Program tasked START2 Contractor to conduct XRF on-site screening of soil throughout the Town of Superior. A total of more than 650 soil samples were collected for XRF screening from nearly 100 residential properties and public land areas.

XRF results show that several residential properties, the High School track, the County fairground, and the Town's right-of-way locations have elevated levels of lead and arsenic contamination. These levels are ranging from 500 ppm to 11,000 ppm for lead or from 100 ppm to 1,700 ppm for arsenic. Ten percent of these soil samples were sent to the labs for analytical confirmation. Four of these samples were also run for Toxicity Characteristics Leaching Procedures (TCLP). Results indicated that all four samples failed TCLP for lead. These results ranged from 36 mg/l to 140 mg/l; the regulatory standard for lead is 5 mg/l. The four samples were collected from the high school track, the County fairground, the residences at 201 Spruce (along the fence line) and at 208 Main street.

3. Description of threat

Arsenic and lead have been identified as the contaminants posing risks and hazards.
See previous POLREPs for additional information.

IV. RESPONSE INFORMATION

A. Situation

1. Removal actions

See POLREPs #1 to #4 for Previous Removal Activities at the Site. The following is a summary:

In August, 2002, an estimate of 6,500 cubic yards of mine tailings and contaminated soils were excavated from the residential properties, the High School track, the County fairground and the Town's right-of-way and transported to the County airport.

In October, 2002, the U.S. Army Corps of Engineers provided the proposed design plan to treat contaminated soil and on-site disposal the treated soil at the County airport ground. the design plan was submitted to EPA, MDEQ and the Mineral County for review and comments.

The EPA's contractor, Environmental Restoration Inc. (ER) and its sub-contractor, Envirocon of Missoula performed the soil treatment and on-site land-based disposal . Approximately 3,560 tons of contaminated soil and tailings were treated using 7 to 10 percent of portland cement. Samples of the treated materials were collected; each sample represented each day of treatment operation and was sent to the lab for TCLP analysis. Sample results indicated that all samples were non-detected for lead (Detection limit is 2.5 mg/l and Regulatory limit is 5 mg/l).

In November, 2002, ER completed the placement of all treated materials and other contaminated soil and materials into the repository cell; the area is approx. 1.5 acres. Three composited samples were collected in the treatment operation and staged areas, analyzed for RCRA total heavy metals for cleanup verification.

The following removal activities were accomplished from November 13 to 22, 2002:

- **ER installed a 6" layer of select-fill over the treated mine tailings and used a roller to smooth the surface to meet the specifications in the design plan.**
- **ER hired a local subcontractor to prepare a 2 foot by 2 foot drainage ditch around the cell.**
- **The ER subcontractor, Barber Webb of Los Angeles installed a membrane over the containment cell; the liner was installed in three phases: the GCL, the liner, and the drainage layer. ER placed <2" drainage rock into the drainage ditches along the liner.**
- **ER placed a 12 inch layer of select-fill over the drainage layer of the liner and graded the surface of the cell to meet the specifications of the design plan.**
- **The COE assisted the OSC to ensure that the cell installation meets all requirements of the design plan.**

2. Disposal

The County, the School District, and the Town of Superior agreed to let EPA use the County airport ground as a permanent repository for the treated wastes.

3. State and Local Role

As a result of concern expressed by the community, the threats posed at the Superior Waste Rock Site and the inability of the State to fund removal of the potentially hazardous materials, the State requested assistance from EPA in undertaking a Removal Action. Staff members from MDEQ, Mineral County Health, School District, and the Town of Superior worked with EPA on a continuing basis. **EPA hired a surveyor to accurately plot the location of the cell as a service to Mineral County.**

4. Enforcement

The Agency has contacted the PRPs and issued a General Notice letter to them.

B. <u>Future Plans</u>

In June 2003, a site visit by the OSC showed that the site cap was in place; the site area was well drained, no erosion was observed and native vegetation had grown at the site. The work at this site was performed in compliance with the NCP and this Removal Action is now considered complete.

V. COST INFORMATION

Total costs have not been received at this time but will be less than the budget ceiling of $630,800 which was established in the Action Memorandum.